Project Plan

<Project Name>

Student Names

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# Introduction

## Background

Road accidents are avoidable and take a great toll on road users and the General public. Although the emotional toll of road accidents is enormous, there is also an exceedingly great cost to Governments and Tax Payers, in 2018 alone this cost was estimated to be more than $5 billion in fatalities and hospitalised casualties <https://statements.qld.gov.au/statements/88410#:~:text=Minister%20for%20Transport%20and%20Main%20Roads&text=%E2%80%9CIn%202018%2C%20the%20economic%20cost,billion%2C%E2%80%9D%20Mr%20Bailey%20said>

Governments provide educational resources about road accident statistics to the general public, as well as other initiatives in an attempt to curb road accidents through education and awareness. As well as using crash statistics for research purposes and for the development of road safety programs, The Victorian Government requires an application to analyse and process Victorian Road Accident Statistics between 2015 and 2020 for an upcoming educational initiative, which will be provided to learners and road users.

## Scope

The Road Accident Stats App will be written in Python 3.7, and provide a user with a graphical user interface for selecting search criteria and the program will output sorted information and models. The data the program will perform tasks on is limited to the Crash Statistics Victoria CSV file.

Required features of the program:

* Graphical user interface for users to select time periods and input accident keywords
* Display information of all accidents that happened during a user-selected period
* Produce a chart showing the average number of accidents in each hour of the day during a user-selected period
* Display all accidents caused by a user entered accident type keyword.
* Analyse trends of accidents due to alcohol
* Analyse trends of accidents involving motorcyclists and the road geometry

The program will not include data outside of the provided CSV file, or the output of information or charts other than specified.

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## Document contents

This Project Plan contains project planning specific tools to ensure the project can be completed in the most efficient time period possible. A Work Breakdown Structure indicating the breakdown and duration of tasks required to complete the project is provided and indicates a task id, prerequisites of tasks, and the team members required to complete. Activity definitions and estimations are broken down and is then used to create a Gantt chart to monitor and review the critical path in order to delegate and schedule tasks accordingly. These charts will be updated iteratively as the project progresses.

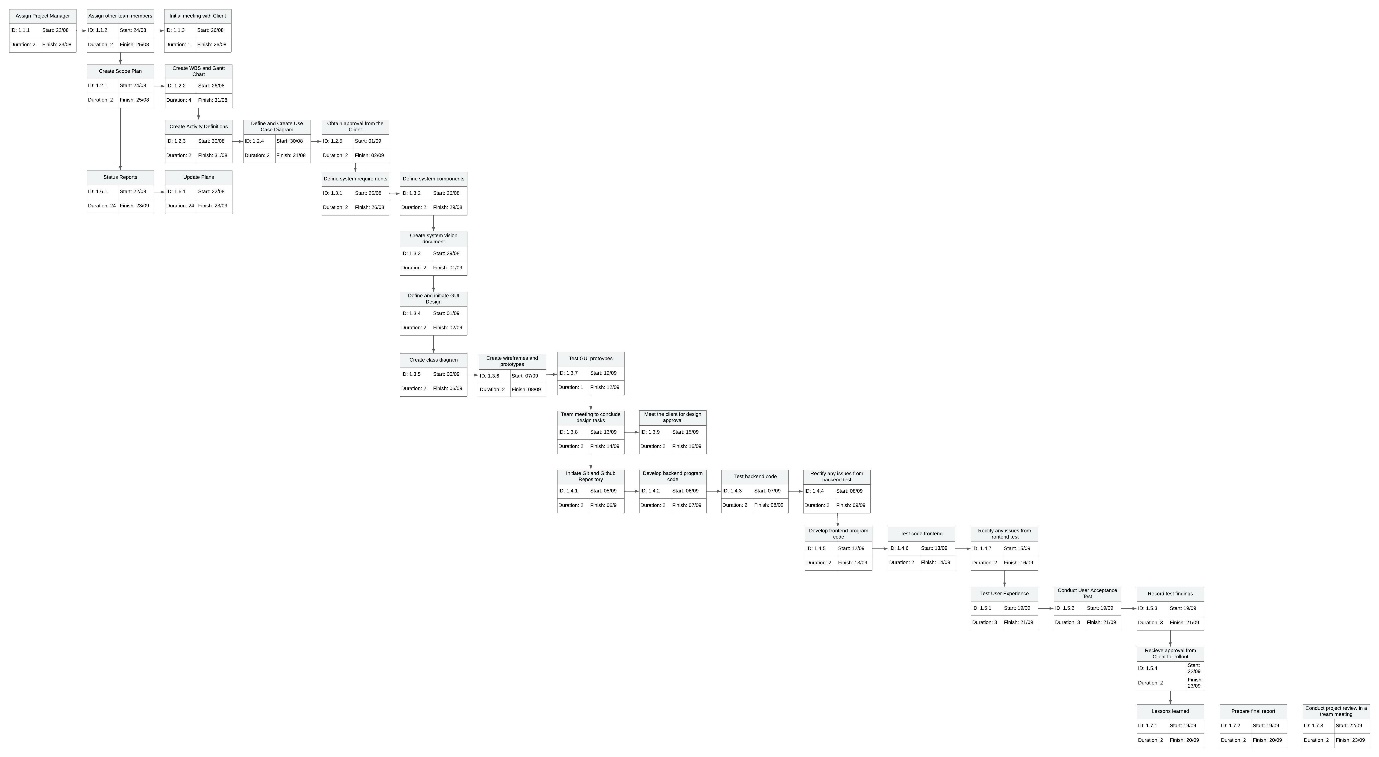
*Include some background information about the problem, the scope and what this document will contain.*

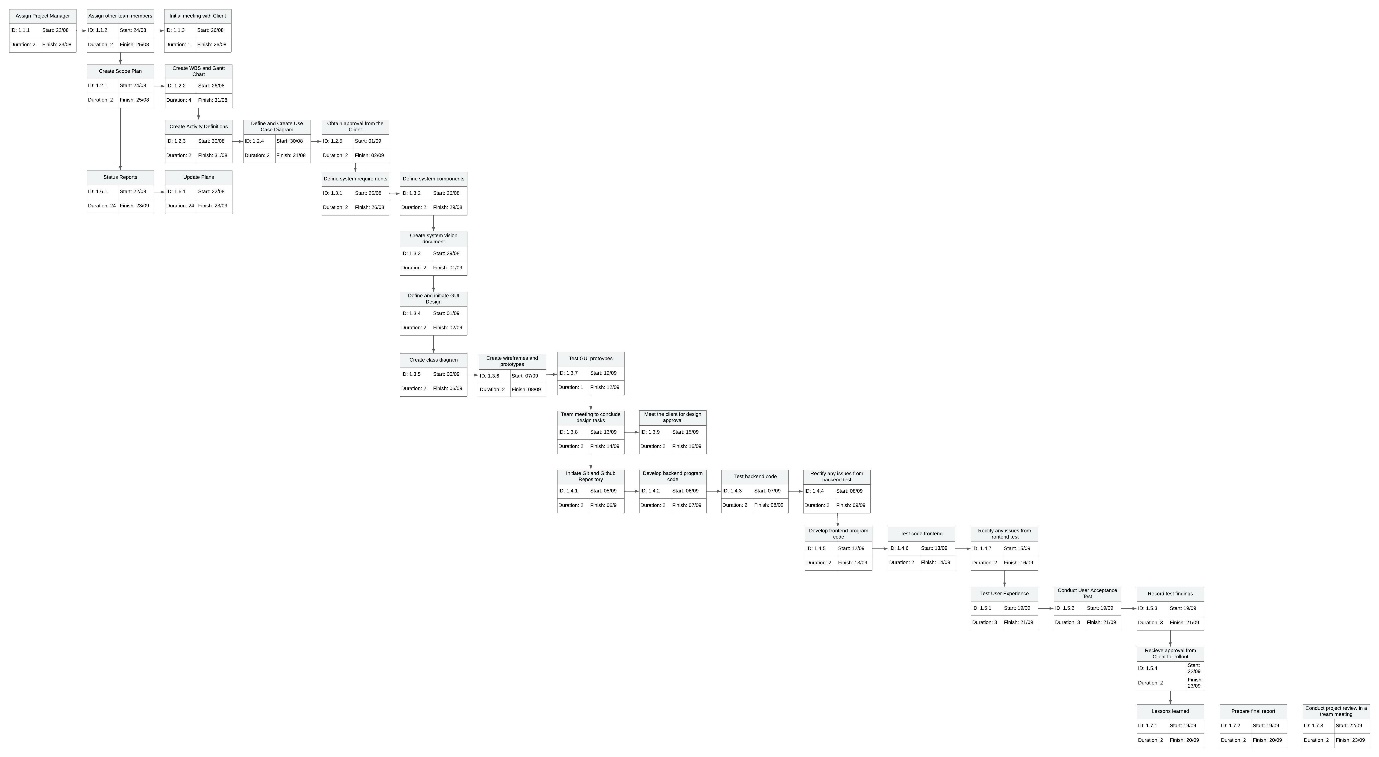
# Work Breakdown Structure

*This section should include the work breakdown structure for the whole project. The elements from the WBS should be used to generate your activity definition and those activities should then be scheduled in the Gantt Chart. Remember to consider ALL project activities – anything you do or will need to do should be included in the WBS*

*WBS’s are usually presented as some kind of hierarchical diagram/chart etc. The details what is involved each work unit should be provided in section 3:* ***Activity Definition***

*You do NOT need to do a WBS Dictionary for this project – the activity definition (whilst slightly different) will suffice. The WBS is focussed on SCOPE. The Activity definition is focussed on TIME.*

**



# Activity Definition & Estimation

*From your WBS, define the activities required for your project. You will revise this document and add more detail for part B as you discover more about the project.*

*Each activity should be clearly identified by a number and should match up to your Gantt chart. You should provide some estimations for the time you think each activity will take. This should make it easy to prepare your Gantt chart.*

## Initiating Tasks

### Assign Project Manager – Duration 2 Days

Decide and/or contact shortlisted Project Managers and assign the role.

### Assign other team members – Duration 2 Days

Project Manager to determine roles required for the project and decide and/or contact shortlisted team members for a system’s analyst and a programmer.

### Initial meeting with Client – Duration 1 Day

Project manager to Meet with client to discuss the project scope, requirements and deadlines.

## Analysis Tasks

### Create Scope Plan – Duration 2 Days

Project manager to Create a scope plan according to the discussion with the client at the client meeting. This includes the project background and scope for inclusion in the project plan.

### Create WBS and Gantt Chart – Duration 2 Days

Project Manager to define tasks required to complete the project by creating a work breakdown structure, estimated schedule, task predecessors, milestones and task assignment according to the deadline.

### Create activity Definitions – Duration 2 Days

Project manager to determine activity definitions and descriptions of each task required.

### Define and Create Use Case Diagram – Duration 2 Days

Systems analyst to define Use Cases and create a Use Case diagram, ensuring the use of the new system and requirements are made clear in the Project Plan.

### Obtain approval from the Client – Duration 2 Days

Project manager to present the Project Plan to the Client for approval to commence design and build of the new system.

## Design Tasks

### Define System Requirements – Duration 2 Days

Functional requirements narrowed down from Use Case Diagram.

### Define System Components – Duration 4 Days

Systems analyst to Define system components, including frameworks, libraries or hardware required to meet the customers requirements.

### Create System Vision Document – Duration 3 Days

System Vision Document commences defining the problem the system will solve, system capabilities and benefits this system will bring the client.

### Define and initiate GUI Design - Duration 2 Days

Graphical User Interface design begins and user experience is analysed according to the use cases.

### Create Class Diagram – Duration 2 Days

Class Diagram is created determining the classes and backend design of the program.

### Create Wireframes and Prototypes – Duration 3 Days

Wireframes of the graphical user interface, and prototypes of the GUI are then created.

### Test GUI Prototypes – Duration1 Day

GUI prototypes are tested by potential users of the system to ensure the client will be satisfied with the user experience.

### Team meeting to conclude design tasks – Duration 2 Days

Meeting with the team to ensure all design tasks are complete, and are ready to be presented to the client for approval.

### Meet the client for design approval – Duration 2 Days

Project Manager to meet with the client for approval of the system design so Building can commence.

## Build Tasks

### Initiate GT and GitHub Repository - Duration 2 Days

Git and GitHub repositories are created and setup to ensure consistent version control and record keeping.

### Develop backend program code – Duration 2 Days

Back-end code is written providing the system with the logic according to the Use Cases, Class Diagrams and System Component Definitions.

### Test backend code – Duration 2 Days

Back End Code is tested iteratively during Back end program coding, and then tested for completion.

### Rectify any issues from backed test – Duration 2 Days

Any issues from Back end testing is rectified iteratively as well as after testing completion.

### Develop frontend program code – Duration 2 Days

Front end code is written providing the system with the GUI elements determined in the wireframes, prototypes, functional requirements and Use Cases.

### Test code Front End – Duration

Front End code is tested iteratively during Front End program coding, and then tested for completion.

### Rectify any issues from front end test - Duration

Any issues from Front End testing is rectified iteratively as well as after testing completion

## Testing Tasks

### Test User Experience – Duration

User Experience is tested by suitable testers to ensure the client is satisfied with the user experience.

### Conduct user acceptance test – Duration

The system is presented to other possible and regular users of the system to evaluate broader acceptance of the system.

### Record test findings – Duration

Findings of the User Acceptance testing are recorded for the Client meeting

### Obtain approval from the client for rollout – Duration

The system and User Acceptance tests are presented to the Client for Final approval and handover of the system.

## Controlling Tasks

### Status Reports – Duration

Status reports and created by the team and provided to the Project Manager throughout the project iteratively and allow the Project Manager to evaluate the current status of the Project.

### Update Plans – Duration

Updates to the plans may be required throughout the project according to status reports.

## Closing Tasks

### Lessons Learned – Duration

Recording of problems and lessons learned to prevent these problems occurring in the future for including in the Final Report.

### Prepare final report – Duration

Final report of the project including problems that occurred, solutions to problems and what went well are contained in the Report.

### Conduct project review in a team meeting – Duration

Meeting with the team is conducted to discuss the final report for improvements for future projects.

# Gantt Chart

*This section should contain your Gantt chart. The items in the Gantt chart should match the activity definition from section 3. You should also submit your Gantt chart file separately.*